Coating, Printing and Aerospace Operations Team

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466659-61 Jason Aspell Hamed Mandilawi 08/10/07

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## PERMIT APPLICATION EVALUATION

## PERMIT TO CONSTRUCT EVALUATION

**Spray Booth, Oven (new construction)** 

**Applicant's Name:** Rohr, Inc.

**Company ID No.:** 800113

Mailing Address: 8200 Arlington Ave., Riverside, CA 92503

**Equipment Address:** 8200 Arlington Ave., Riverside, CA 92503

## **EQUIPMENT DESCRIPTION:**

## **Application 466659:**

Title V/RECLAIM Revision

Equipment	ID No.	Connected To	Source Type/ Monitoring	Emissions	Conditions
			Unit		
					P2.1
Process 1: OVENS					
OVEN, DFI, NO. C-87, 26 FT L.	D245		NOx:	CO: 2000 PPMV	A63.19,
X 14 FT W. X 12 FT H., WITH			PROCESS	NATURAL GAS (5)	C1.17,
BURNER, NATURAL GAS,			UNIT	[RULE 407], NOX:130	C6.18,
ECLIPSE, MODEL NO. WX400,				LB/MMCF (1) [RULE	K67.8
4.0 MMBTU/HR LOW NOX				2012], NOX: 30 PPMV	
BURNER				NATURAL GAS (5)	
				[RULE 2005],	
				PM: (9) 0.1	
				GRAINS/SCF	
A/N 466661 (New Construction)				NATURAL GAS	
				[RULE 409], PM:	
				[RULE 404]	

Equipment	ID No.	Connected	Source Type/	Emissions	Conditions
		То	Monitoring		
			Unit		
Process 4: SURFACE COATIN	<b>VG</b>				P2.1
System 1: PRODUCTION SPI	RAY BOO	OTHS			
SPRAY COATING	D244			PM: (9) [RULE 404];	A63.5,
OPERATION, G-80,18 FT. L. X				HAPS: (10)[40CFR 63	B27.10,
15 FT. W. X 11.75 FT. H., WITH				Subpart GG]; VOC:	C1.15,
3 STAGE DRY EXHAUST				(9) [RULE 1124];	C1.16,
FILTERS AND ONE 10-HP				VOC: (9) [RULE	C4.1,
EXHAUST FAN WITH				1171];	C6.17,
					D182.2,
FILTER, 58- 20 IN. X 25 IN. X 1					D322.1,
IN. PRIMARY FILTERS, 8 20					E71.4,
IN. X 20 IN X 2 IN 2NDARY					E175.1,
FILTERS AND 42 2 FT X 2 FT					E175.4,
X 1 FT HEPA FILTERS					E190.1,
A/N 466660 (New Construction)					H23.11,

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		K67.1,
		K67.6

#### **HISTORY:**

The company submitted Application Nos. 466659-61 on 3/27/07 for a RECLAIM/Title V Permit Revision and permits to construct a paint spray booth and a curing oven. The company is a Title V source and is a Cycle 2 RECLAIM facility for NOx emissions. The company is located in an industrial zone with nearby residential areas located to the north and south of the property. There have been no recent complaints filed against the facility. In May 2007, the company received a notice of violation for violating permit conditions on a spray booth and a vapor degreaser. The company has since corrected the problem and is currently operating in compliance with the permit conditions and applicable rules and regulations.

#### PROCESS DESCRIPTION:

Rohr, Inc. is a subsidiary of the Goodrich Corporation, and is a large producer of military and commercial aerospace products. This project will include the installation of a new spray booth and curing oven in the 787 Paint Shop located in Building 55 at the facility. The company will be applying a high temperature primer and a metallized epoxy primer coating in the spray booth with a HVLP spray gun. The HVLP spray gun will be assumed to have a transfer efficiency of 65%. Particulates in the overspray will be exhausted to a three stage filtration system. The stage with the highest collection efficiency will be the HEPA filters at 99.97%. The company expects to spray 2.5 gallons of coatings per day. After the coatings are applied, the parts will be cured in a 4.00 MMBTU/hr oven at a temperature range of 125°F to 230°F. The maximum temperature will be 375°F. The oven will also be used to cure hand applied sealants and potting materials. The oven will be equipped with a low NOx burner. The company will be limiting the natural gas usage of the oven to 39,500 cu. ft. per day. The operating hours of the paint shop will be 24 hrs/day, 7 day/week, 52 weeks/yr. All clean up for both pieces of equipment will be done with acetone.

#### **EMISSION CALCULATIONS:**

The company will be applying 2.5 gallons of coatings per day in the spray booth. 2.0 gallons per day of the High Temp Primer (5.37 lb VOC/gal) will be used, along with 0.5 gallons per day of the metallized epoxy (5.51 lb VOC/gal). Outside of the booth the facility will be hand applying 5 gallons of EA956 epoxy (0.08 lb VOC/gal) and 2.1 gallons per day of 1617 epoxy (0.065 lb VOC/gal), and these materials will be cured in the oven. The VOC emissions from the materials applied outside of the booth, but cured in the oven will be attributed to the curing oven. PM and VOC emissions from materials applied in the spray booth will be applied to the spray booth.

#### Spray Booth

Assume 65% transfer efficiency 99.97% control efficiency  $PM = 2 \times PM_{10}$ PM, max = PM, avgROG = TOG

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PM, max = 
$$2.5 \frac{\text{gal}}{\text{day}} \cdot 8.5 \frac{\text{lb coating}}{\text{gal}} \cdot 0.35 \frac{\text{lb PM}}{\text{lb coating}}$$
 (solids content epoxy) =  $7.44 \frac{\text{lb PM}}{\text{day}}$   
 $R1_{PM}$ ,  $hr = 7.44 \frac{\text{lb PM}}{\text{day}} \cdot (1 - 0.65) \div 24 = 0.1085 \frac{\text{lb PM}}{\text{hr}}$   
 $R2_{PM}$ ,  $hr = 0.1085 \cdot (1 - 0.9997) =  $3.3 \times 10^{-5} \frac{\text{lb PM}}{\text{hr}}$  ( $PM = 2PM \cdot 10$ )$ 

30 - Day Avg, PM 
$$_{10} = 3.3 \times 10^{-5} \frac{\text{lb PM}}{\text{hr}} \cdot 0.5 \frac{\text{lb PM10}}{\text{lb PM}} \cdot 7 \frac{\text{day}}{\text{week}} \cdot 4.33 \frac{\text{wk}}{\text{mo}} \cdot \frac{1 \text{ month}}{30 \text{ days}} = 0.00 \frac{\text{lb PM10}}{\text{day}}$$

The facility operates under a facility VOC limit of 1179 lb VOC per day, therefore, the 30-Day NSR ROG emissions will be entered as 0 lb/day.

$$\begin{aligned} &ROG, & max &= 2.0 \, \frac{gal}{day} \cdot 5.37 \, \frac{lbVOC}{gal} + 0.5 \, \frac{gal}{day} \cdot 5.51 \, \frac{lbVOC}{gal} = 13.50 \, \frac{lb \, ROG}{day} \\ &R1, \, ROG \, , _{hr} &= 13.50 \, \frac{lb \, ROG}{day} \div 24 \, \frac{hr}{day} = 0.56 \, \frac{lb \, ROG}{hr} \\ &R1 &= R2 \end{aligned}$$

#### Oven

Up to 7.1 gallons of materials applied outside of the booth will be cured in the oven. The facility operates under a facility VOC limit of 1179 lb VOC per day, therefore, the 30-Day NSR ROG emissions will be entered as 0 lb/day. Maximum emissions will be assumed to be equal to average emissions. VOC emissions from the coatings curing in the oven will be:

$$\begin{array}{llll} ROG, & max & = 5.0 \, \frac{gal}{day} \cdot 0.08 \, \frac{lb \, VOC}{gal} + 2.1 \, \frac{gal}{day} \cdot 0.065 \, \frac{lb \, VOC}{gal} = 0.54 \, \frac{lb \, ROG}{day} \\ R1, & ROG \end{array}, \\ _{hr} & = 0.54 \, \frac{lb \, ROG}{day} \div 24 \, \frac{hr}{day} = 0.02 \, \frac{lb \, ROG}{hr} \\ R1 & = R2 \end{array}$$

The oven will also result in NOx, CO, PM and SOx emissions from the combustion of natural gas. The equipment will have a low NOx burner which will result in an emission of 30 ppm NOx. This will result in the following emission factor:

NOx EF(lb/mmcf) = ppm 
$$\cdot \left[ \frac{20.9}{20.9 - b} \right] \cdot 1.195 \times 10^{-7} \cdot F_d \cdot V$$

where

b = standard O2 concentration (3%)

Fd = Dry F - factor (Natural Gas = 8710 dscf/MMBTU)

V = Higher heating value (1050 MMBTU/mmcf)

NOx EF (lb/mmcf) = 
$$30 \cdot \frac{20.9}{20.9 - 3} \cdot 1.195 \times 10^{-7} \cdot 8710 \cdot 1050 = 38.3 \frac{\text{lb NOx}}{\text{lb mmcf}}$$

The company will be limiting the natural gas usage of the oven to 39,500 cu. ft. of natural gas per day. Therefore this factor, along with AQMD emission factors for natural gas combustion will result in the following emissions for the oven:

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Equipment	VOC	NOx	SOx	CO	PM	PM10
Emission Factors (lb/mmcf)	7.0	38.3	0.83	35	7.5	7.5
Daily Emissions*	0.0115 lb/hr	0.063 lb/hr	0.001 lb/hr	0.058 lb/hr	0.012 lb/hr	0.012 lb/hr
30-Day Avg	0.276	1.5	0.032	1.39	0.288	0.288

<sup>\*(1050</sup> mmBTU/mmscf)

## RULES/REGULATION EVALUATION:

# RULE 212, PUBLIC NOTIFICATION SUBPARAGRAPH 212(c)(1):

This paragraph requires a public notice for all new or modified permit units that may emit air contaminants located within 1,000 feet from the outer boundary of a school. According to the MSN Yellow Pages and Google Maps, the facility will not be within 1000 feet of any schools. Therefore, public notice distribution will not be required under this section.

#### **PARAGRAPH 212(c)(2):**

This section requires a public notice for all new or modified facilities that have on-site emission increases exceeding any of the daily maximums as specified by Rule 212(g).

The proposed project will result in an emission increase for the entire facility. A Rule 212(c)(2) notice will not be triggered since the emission increase is below the daily maximum specified in Rule 212(g). The emissions for the new spray booth and oven are summarized below:

Pollutant	Spray	Oven	Max. 212(g)
	Booth	(lb/day)	Daily Emission
	(lb/day)		Increase (lb/day)
CO	0	1	220
NOx	0	2	40
PM10	0	0	30
ROG	0	0	30
SOx	0	0	60

#### **PARAGRAPH 212(c)(3):**

This section requires a public notice for all new or modified permit unit with increases in emissions of toxic air contaminants listed in Table I of Rule 1401 resulting in MICR greater than 1E-6 per permit unit or greater than 10E-6 per facility.

The proposed project will result in an emission increase of toxic emissions associated with the operation of the new spray booth and oven. However, as discussed in additional detail in the evaluation, the toxic emissions from this equipment will not result in an increase in MICR of more than  $1 \times 10^{-6}$  nor a hazard index greater than 1.0. Public notice is not required under this section of the rule.

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## PARAGRAPH 212(g):

The equipment addition will not result in emission increases exceeding the daily maximums for NOx, CO, SOx, VOC or PM10 emissions as specified in Rule 212(g). Therefore, a 30-day public notice period will not be required under this paragraph.

Pollutant	Spray	Oven	Max. 212(g)
	Booth	(lb/day)	Daily Emission
	(lb/day)		Increase (lb/day)
CO	0	1	220
NOx	0	2	40
PM10	0	0	30
ROG	14	1	30
SOx	0	0	60

### **RULE 401, VISIBLE EMISSIONS**

With the proper use of the equipment, no visible emissions are expected.

#### **RULE 402, NUISANCE**

With the proper operation of the equipment, no nuisance problems are expected at this facility. The facility is located within an industrial area with nearby residential areas to the north and south of the facility. Because of the high control efficiency equipment on the spray booth and low material usage, there will be a negligible amount of particulate matter emitted from this operation (less than 0.001 pound  $PM_{10}$  per day). Based on previous experience with similar operations, the emissions from the booth should not result in a nuisance. Compliance with this rule is expected.

## RULE 1124. AEROSPACE ASSEMBLY AND COMPONENT MANUFACTURING **OPERATIONS**

In the spray booth, the company will be spraying a metallized epoxy coating and a high temperature primer, which have coating VOC limits of 700 and 800 g VOC/L, respectively. The epoxy will have a coating VOC content of 661 g VOC/L, and the High Temperature primer will have a content of 644.3 g VOC/L. Both of these coatings will meet their respective VOC limits. They will be applied with a HVLP spray gun which will meet the transfer efficiency requirements of subsection (c)(3) of this rule. The materials (non structural adhesives) that will be hand applied outside of the booth, but cured in the oven, they will contain very little VOC (less than 10 g VOC/L as applied), and will be less than the rule limits of a non structural adhesive in this rule (250 g VOC/L). For solvent cleaning purposes, the facility will be using acetone for items processed in the spray booth and oven. Acetone is defined as an exempt compound under Rule 102. Coating and adhesive application equipment is subject to Rule 1171. The company will meet the cleaning and coating requirements for this rule. Compliance with this rule is expected.

## RULE 1132, FURTHER CONTROL OF VOC EMISSIONS FROM HIGH EMITTING SPRAY BOOTH FACILITIES

The facility has a VOC PTE greater than 20 tons per year and is subject to the requirements of this rule. This spray booth will meet the exemption from section (c) of this rule by meeting the requirements of 1132(h)(2). The allowable usage of coatings applied in this booth will be 2.5 gallons per day which will result in 15 lbs of VOC per day. The cfm rating of the booth is 27,000 cfm. The exemption requires the booth to remain above 10,000 cfm and emit no more than 25 lbs of VOC per

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day. The company will be required to measure the exhaust rate of the booth as a permit condition verifying compliance with this rule.

#### **RULE 1171, SOLVENT CLEANING OPERATIONS**

The company will be using acetone for spray gun cleaning. Acetone is defined as an exempt compound under Rule 102. Compliance with this rule is expected.

#### **REGULATION XIII**

#### RULE 1303(a), BEST AVAILABLE CONTROL TECHNOLOGY (BACT)

The spray booth will be equipped with a three stage filtering system including a HEPA filter which is expected to comply with BACT requirements. The company is a RECLAIM facility and therefore Regulation XIII does not apply to the NOx emissions from the oven. Compliance with this rule is expected.

## RULE 1303(b)(1), MODELING

There are presently no modeling requirements for VOC or SOx emissions. The emissions for each piece of equipment are listed in the table below. The emissions from each piece of equipment will be less than the corresponding Screening Analysis values in Table A-1 in Rule 1303. The company is a RECLAIM facility and therefore Regulation XIII does not apply to NOx emissions. Compliance with this rule is expected.

Equip	ment	CO lb/hr	PM10 lb/hr
Spray Booth	1	0	3.3x10 <sup>-5</sup>
Oven		0.058	0.012
Allowable	S/B	3.7	0.41
Emissions	RTO	17.1	1.9

#### **RULE 1303(b)(2), OFFSETS**

The operation of the spray booth and oven will result in a maximum VOC emission of 15 lbs/day and CO emissions of one pound per day. This equipment will be included under a VOC cap of 1179 lbs VOC/day, so there will be no overall increase at the facility. The installation of the oven will not cause the facility's potential to emit of CO emissions to exceed 29 tons per year. The facility will remain within the limits specified in Table A of Rule 1304(d). The company is a RECLAIM facility and therefore Regulation XIII does not apply to NOx emissions. Therefore, Rohr, Inc. will not be required to provide emission offsets.

#### RULE 1303(b)(4), FACILITY COMPLIANCE

Based on District's compliance records, the facility is currently operating in compliance with all applicable rules and regulations of the District.

#### RULE 1303(b)(5)(A) & 1303(b)(5)(D)

The proposed project does not qualify as a major modification at a major polluting facility. Further, the proposed project is exempt from CEQA according to the responses Rohr provided on Form 400-CEQA for this project. Their responses in "Review of Impacts Which May Trigger CEQA" on Form 400-CEQA were all marked "No".

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#### RULE 1303(b)(5)(B), STATEWIDE COMPLIANCE

The Increase in emissions associated with the proposed addition of the spray booth and oven does not qualify as a major modification at an existing major polluting facility.

## RULE 1303(b)(5)(C), PROTECTION OF VISIBILITY

A modeling analysis for plume visibility is not required since the net emission increase from the proposed project does not exceed 15 ton/yr of PM10 or 40 ton/yr of NOx.

## RULE 1401, NEW SOURCE REVIEW OF TOXIC AIR CONTAMINANTS

According to the Material Safety Data Sheets (MSDS) that were submitted with these applications, Rohr, Inc. will be spraying coatings in this spray booth that contain toxic air contaminants (TAC) identified in Table 1 of Rule 1401, with an effective date of March 4, 2005 or earlier. The volatile TACs in the coatings applied in the spray booth will be applied to the spray booth, while volatile TACs from the materials hand applied outside of the booth, but cured in the oven, will be applied to the oven.

For the particulates in the spray booth, the Aluminized Epoxy will contain 5% by weight Zinc Chromate, and the base component of the Heat Resistant Primer will contain up to 30% by weight Calcium Chromate. Both of these compounds contain hexavalent chromium which is a carcinogenic compound.

Hex. Chromium in  $ZnCrO_4$  = (52 lb Cr / 181.38 lb  $ZnCrO_4$ ) x 100 = 28.7%  $Cr^{6+}$  Hex. Chromium in  $CaCrO_4$  = (52 lb Cr / 156.07 lb  $CaCrO_4$ ) x 100 = 33.3%  $Cr^{6+}$  Hex Chromium in 862-02042 Metallized Epoxy = 0.287 x 5% = 1.435%

Hex Chromium in 825-009 Heat Resistant Primer =  $0.333 \times 30\% = 9.99\%$ 

end of this evaluation.

The remainder of the toxic compounds in the coatings were calculated based on the maximum expected usages provided by the applicant. The toxic compounds emitted from natural gas combustion were calculated using the AB2588 emission factors. These calculations are located at the

A health risk assessment was performed for each piece of equipment. The maximum possible emission of each compound was used. The distance to the nearest residential receptor is 167 meters and to the nearest commercial receptor is 137 meters. The exhaust stack of the oven is 35 feet tall, and the spray booth is 30 ft tall. For the oven, a HRA was performed. The results show that the resulting MICR will be less than one in a million and the HIA and HIC will each be less than 1.0. For

the spray booth, due to the presence of hexavalent chromium, methyl ethyl ketone, xylene, toluene, ethylbenzene, and methylene diphenyl diisocyanate a HRA was also performed. The results showed a residential MICR of 0.134 in a million and a commercial of 0.917 in a million. The HIA and HIC will each be less than 1.0.

A permit condition will be added disallowing the use of materials that contain toxic air contaminants as identified in Rule 1401, as amended on March 4, 2005, or earlier, except for methyl ethyl ketone, xylene, toluene, ethylbenzene, and methylene diphenyl diisocyanate, and hexavalent chromium. The chromium content of the coating will also be limited by permit condition. Compliance with this rule is expected

#### **RULE 1469.1, SPRAY OPERATIONS USING TOXIC CHEMICALS**

The company will be spraying coatings containing hexavalent chromium in the spray booth and will be subject to the requirements of this rule. At an exhaust rate of 27,000 cfm and a booth cross section

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of 211.5 ft<sup>2</sup>, the average inward face velocity will be 127.5 fpm, which will exceed the minimum requirement of 100 fpm of subsection (d)(1)(B). The booth will be exhausted at a rate of 8.5 air exchanges per minute and will require only 22 seconds to achieve 3 air exchanges after spray operations cease. A permit condition will be added to have the spray booth operating for 30 seconds after spray operations cease to comply with (d)(1)(C). The company will be using an HVLP spray gun to apply chromium containing coatings which will meet the transfer efficiency requirements of (d)(2). This source will be ventilated to air pollution control equipment with an efficiency of 99.97% to meet the requirements of section (d)(3). Compliance with this rule is expected.

#### **REGULATION XX-RECLAIM**

## **RULE 2005-NEW SOURCE REVIEW FOR RECLAIM**

Rohr, Inc. is a NOx RECLAIM facility and the oven is the only source of NOx for this project.

#### RULE 2005(c)(1)(A)-BEST AVAILABLE CONTROL TECHNOLOGY

The present BACT guidelines require that a curing oven be limited to 30 ppmvd NOx (corrected to  $3\% O_2$ ). The curing oven will have a Winnox WX400 Low NOx burner that will meet these emission limits. Compliance with this rule is expected.

#### RULE 2005(c)(1)(B)-MODELING

The oven will result in an emission of 0.063 lb NOx/hr. The oven has a 4 MMBTU/hr burner. The corresponding Screening Analysis limit in Table A-1 of Rule 2005 is 0.2 lb NOx/hr. Since the emissions will be less than this amount, a significant increase in air quality concentration of NOx will not occur. Compliance with this rule is expected.

## **RULE 2005(c)(2)-RTC**

The facility holds sufficient RTCs to offset the annual emission increase for the first year. The company has an allocation of 19677 lb NOx for the coming year, and they reported 12,820 lb NOx for 2005-2006 year.

#### **RULE 2012 – REQUIREMENTS FOR MRR FOR NOX EMISSIONS**

The oven will qualify as a NOx Process Unit under this rule. The facility will be subject to all the applicable requirements under this rule.

## 40 CFR 63 SUBPART GG- National Emission Standards for Aerospace Manufacturing

The facility is a major source pursuant to \$63.2, and will be subject to the requirements of this subpart. To comply with \$63.744 the company will be using acetone for hand wipe operations and enclosed cleaning systems to clean application equipment. The cleaner will be an exempt solvent, that is non-photochemically reactive and is not a HAP. The facility will be applying coatings that qualify as specialty coatings under Appendix A of this subpart. Pursuant to 63.741(f), there are no control requirements for specialty coatings. The spray booth will have a HEPA filter due to the presence of chromium. The HEPA filter will have a control efficiency of 99.97% on particles  $0.3\mu$  and larger. The facility is expected to comply with this section.

### **REGULATION XXX:**

This facility is in the RECLAIM program. The proposed project is considered as a "de minimis significant permit revision" for non-RECLAIM pollutants or hazardous air pollutants (HAPs), and a "minor permit revision" for RECLAIM pollutants to the RECLAIM/Title V permit for this facility.

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#### Non-RECLAIM Pollutants or HAPs

Rule 3000(b)(6) defines a "de minimis significant permit revision" as any Title V permit revision where the cumulative emission increases of non-RECLAIM pollutants or HAPs from these permit revisions during the term of the permit are not greater than any of the following emission threshold levels:

Air Contaminant	Daily Maximum (lbs/day)
HAP	30
VOC	30
NOx*	40
$PM_{10}$	30
SOx*	60
CO	220

<sup>\*</sup> Not applicable if this is a RECLAIM pollutant

To determine if a project is considered as a "de minimis significant permit revision" for non-RECLAIM pollutants or HAPs, emission increases for non-RECLAIM pollutants or HAPs resulting from all permit revisions that are made after the issuance of the *Title V renewal permit* shall be accumulated and compared to the above threshold levels. This proposed project is the *4th* permit revision to the *Title V renewal permit* issued to this facility on *May 9*, *2005*. The following table summarizes the cumulative emission increases resulting from all permit revisions since the *Title V renewal permit* was issued:

Revision	HAP	VOC	NOx*	PM <sub>10</sub>	SOx	CO
1 <sup>st</sup> Permit Revision; change of	0	0	0	0	0	0
conditions on 23 spray booths(						
D25, D27, D28, D29, D30,						
D31, D33, D34, D35, D36,						
D37, D40, D41, D42, D132,						
D151, D152, D202, D205,						
D207, D210, D217, D223.						
2 <sup>nd</sup> Permit Revision: addition of	0	4	9*	0	0	8
one spray booth D 229, two						
abrasive blasting rooms with						
APC systems D230, D232,						
D233, D234, D235, D237,						
D238, D239 and two curing						
ovens D240 and D241.						
3 <sup>rd</sup> permit Revision:	0	0	1	0	0	0
construction of one spray booth						
D242 and one curing oven						
D243						
4 <sup>th</sup> permit Revision:	0	0	2*	0	0	1
construction of one spray booth						
D244 and one curing oven						

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D245						
Cumulative Total	0	4	12*	0	0	9
Maximum Daily	30	30	40*	30	60	220

<sup>\*</sup> RECLAIM pollutant, not subject to emission accumulation requirements

Since the cumulative emission increases resulting from all permit revisions are not greater than any of the emission threshold levels, this proposed project is considered as a "de minimis significant permit revision" for non-RECLAIM pollutants or HAPs.

#### **RECLAIM Pollutants**

Rule 3000(b)(12)(A)(v) defines a "minor permit revision" as any Title V permit revision that does not result in an emission increase of RECLAIM pollutants over the facility starting Allocation plus nontradeable Allocations, or higher Allocation amount which has previously undergone a significant permit revision process.

Since NOx is a RECLAIM pollutant for this facility, a separate analysis shall be made to determine if the proposed permit revision is considered a "minor permit revision" for RECLAIM pollutants. Section B of the Title V permit shows that this facility's NOx starting Allocation plus the non-tradable Allocation is 137,739 pounds. The proposed project is expected to result in an increase of 2 lbs/day (547.5 lbs/year) of NOx emissions from this permit revision, less than the starting Allocation plus the non-tradable Allocations of 137,739 pounds. As a result, this proposed project is considered as a "minor permit revision" for RECLAIM pollutants.

## RECOMMENDATION

The proposed project is expected to comply with all applicable District Rules and Regulations. Since the proposed project is considered as a "de minimis significant permit revision" for non-RECLAIM pollutants or hazardous air pollutants (HAPs), and a "minor permit revision" for RECLAIM pollutants, it is exempt from the public participation requirements under Rule 3006(b). A proposed permit incorporating this permit revision will be submitted to EPA for a 45-day review pursuant to Rule 3003(j). If EPA does not have any objections within the review period, a revised Title V/RECLAIM permit will be issued to this facility.

#### PERMIT CONDITIONS

The equipment will be subject to the following permit conditions

P2.1

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CONTAMINANT | EMISSIONS LIMIT

VOC | LESS THAN OR EQUAL TO 1179 LBS IN ANY ONE DAY

For the purposes of this condition, the emission limit(s) shall be based on the total combined emissions from process 1(Ovens) and 4 (Surface coating).

Spray Booth, Application 466660, D244

#### A63.5

THE OPERATOR SHALL LIMIT EMISSIONS FROM THIS EQUIPMENT AS FOLLOWS: CONTAMINANT | EMISSIONS LIMIT

VOC | LESS THAN OR EQUAL TO 15 LBS IN ANY ONE DAY

#### B27.10

THE OPERATOR SHALL NOT USE MATERIALS, EXCEPT FOR METHYL ETHYL KETONE, XYLENE, TOLUENE, ETHYL BENZENE, HEXAVALENT CHROMIUM, AND METHYLENE DIPHENYL DIISOCYANATE, CONTAINING ANY TOXIC AIR CONTAMINANTS (TACS) IDENTIFIED IN THE SCAQMD RULE 1401, AS AMENDED 03/04/2005.

#### C1.15

THE OPERATOR SHALL LIMIT THE COATING AND SOLVENT USAGE TO NO MORE THAN 2.5 GALLON(S) PER DAY.

#### C1.16

THE OPERATOR SHALL LIMIT THE MATERIAL PROCESSED TO NO MORE THAN 1.06 LB(S) IN ANY ONE YEAR.

For the purpose of this condition, material processed shall be defined as the amount of hexavalent chromium emitted from this equipment.

To comply with this condition, the operator shall determine the amount of hexavalent chromium as follows: (the amount of coating used) x (density) x (percentage of chromate component) x (the ratio of hexavalent chromium molecular weight to the chromate component molecular weight).

#### C4.1

THE OPERATOR SHALL LIMIT THE EXHAUST FLOW TO NO LESS THAN 25,000 CUBIC FEET PER MINUTE.

#### C6.17

THE OPERATOR SHALL USE THIS EQUIPMENT IN SUCH A MANNER THAT THE DIFFERENTIAL PRESSURE BEING MONITORED, AS INDICATED BELOW, DOES NOT EXCEED 1.5 INCHES WATER COLUMN.

To comply with this condition, the operator shall install and maintain a(n) differential pressure gauge to accurately indicate the differential pressure across the three stage filters.

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The operator shall record the parameter being monitored once every 7 days.

#### D182.2

THE OPERATOR SHALL TEST THIS EQUIPMENT IN ACCORDANCE WITH THE FOLLOWING SPECIFICATIONS:

The operator shall verify the exhaust flow rate within 60 days of initial operation of the equipment. If the exhaust fan of this spray booth is repaired, modified, or replaced the operator shall conduct tests pursuant to an appropriate AQMD approved test method to determine the exhaust flow rate within 60 days of such repair, modification or replacement.

#### D322.1

THE OPERATOR SHALL PERFORM A WEEKLY INSPECTION OF THE EQUIPMENT AND FILTER MEDIA FOR LEAKS, BROKEN OR TORN FILTER MEDIA, AND IMPROPERLY INSTALLED FILTER MEDIA.

#### E71.4

THE OPERATOR SHALL NOT TURN OFF THE EXHAUST FAN ON THIS EQUIPMENT UNTIL 30 SECONDS AFTER SPRAY OPERATIONS HAVE CEASED.

#### E175.1

THE OPERATOR SHALL NOT USE THIS EQUIPMENT UNLESS ALL EXHAUST AIR PASSES THROUGH THE FOLLOWING:

3-stage dry particulate filters

#### E175.4

THE OPERATOR SHALL NOT USE THIS EQUIPMENT UNLESS ALL EXHAUST AIR PASSES THROUGH THE FOLLOWING:

a single stage of HEPA filters individually DOP tested (or equivalent) with 0.3 micron particulates and certified to have a control efficiency of not less than 99.97%, as required by AQMD Rule 1469.1

#### E190.1

THE OPERATOR SHALL MAINTAIN A MINIMUM STACK HEIGHT OF 30 FEET.

### H23.11

THIS EQUIPMENT IS SUBJECT TO THE APPLICABLE REQUIREMENTS OF THE FOLLOWING RULES OR REGULATIONS:

CONTAMINANT	RULE	RULE/SUBPART
PM	DISTRICT RULE	481
VOC	DISTRICT RULE	109
RULE 1401 COMPOU	NDS   DISTRICT RULE	1469.1

#### K67 1

THE OPERATOR SHALL KEEP RECORDS, IN A MANNER APPROVED BY THE DISTRICT, FOR THE FOLLOWING PARAMETER(S) OR ITEM(S):

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the name of the person performing the inspection and/or maintenance of the filter media the date, time and results of the inspection

the date, time and description of any maintenance or repairs resulting from the inspection

#### K67.6

THE OPERATOR SHALL KEEP RECORDS, IN A MANNER APPROVED BY THE DISTRICT, FOR THE FOLLOWING PARAMETER(S) OR ITEM(S):

daily usage and volatile organic compound emissions in a manner approved by the Executive Officer

#### Oven, Application 466661, D245

#### A63.19

THE OPERATOR SHALL LIMIT EMISSIONS FROM THIS EQUIPMENT AS FOLLOWS:

CONTAMINANT | EMISSIONS LIMIT

VOC | LESS THAN OR EQUAL TO 1 LBS IN ANY ONE DAY

For the purpose of this condition, the VOC limit shall be based on the emissions from the coatings and solvents used on the articles cured in this oven. The operator shall keep adequate records to demonstrate compliance with this condition.

### C1.17

THE OPERATOR SHALL LIMIT THE NATURAL GAS FUEL USAGE TO NO MORE THAN 39,500 CUBIC FEET PER DAY.

To comply with this condition, the operator shall install and maintain a(n) non-resettable totalizing fuel meter to accurately indicate the fuel usage being supplied to the oven.

The operator shall maintain records in a manner approved by the District, to demonstrate compliance with this condition.

#### C6.18

THE OPERATOR SHALL USE THIS EQUIPMENT IN SUCH A MANNER THAT THE TEMPERATURE BEING MONITORED, AS INDICATED BELOW, DOES NOT EXCEED 375 DEG F.

To comply with this condition, the operator shall install and maintain a(n) temperature gauge to accurately indicate the temperature of the oven.

The operator shall determine and record the parameter being monitored once every 1 days.

#### K67.8

THE OPERATOR SHALL KEEP RECORDS, IN A MANNER APPROVED BY THE DISTRICT, FOR THE FOLLOWING PARAMETER(S) OR ITEM(S):

daily usage and volatile organic compound emissions from hand applied materials in a manner approved by the Executive Officer